that Memel is at present Lithuania's only practicable access to the sea. Moreover, since 1923 a large number of important industries have been established in and near the town with the object of supplying the Lithuanian hinterland; and thus a large proportion of Lithuania's industries are located in Memel. While these two circumstances have undoubtedly led to a noteworthy increase in the economic importance of Memel since the War, Memel has suffered much, on the other hand, through the closing of the Polish-Lithuanian frontier since 1920; for, as the result, what was formerly her chief source of income, namely the handling of timber floated down the Niemen from Poland, has ceased to exist.

At present over three-quarters of Lithuania's exports by value, and over two-thirds of her imports, are effected by sea through the port of Memel. In addition, goods are imported through Memel in transit for Russia and sometimes Latvia, and the same is true of exports. Traffic through Memel (in net registered tons) is now more than three-quarters that of Tallinn. During the last few years the practice of importing or exporting through the Latvian port of Liepāja has somewhat decreased in favour of Memel.

To this the completion in 1932 of the Siauliai–Telsiai–Kretinga railway has greatly contributed, since previously railway communication between Central Lithuania and Memel involved a long detour, either to the south, almost as far as Tilsit, or to the north through Latvian territory; and Liepāja was thus nearer to Kaunas than was Memel. The result of this increase can be seen from the following table:

TABLE 12. *Imports, Exports, and Shipping through Memel, 1932–7*

	Exports from Memel by sea (mill. lits)	*Percentage of total Lithuanian exports*	*Imports into Memel by sea (mill. lits)*	*Percentage of total Lithuanian imports*	*Shipping entered through Memel ('000 net registered tons)*
1932	123·6	65·4	78·3	46·9	519·7
1933	106·6	66·6	79·0	55·6	600·7
1934	97·3	66·1	83·9	60·5	622·8
1935	115·2	77·6	80·0	62·2	691·3
1936	149·4	78·4	106·2	68·0	788·5
1937	157·0	75·3	145·0	66·0	844·7

Out of the 844,700 net registered tons of shipping entering Memel during 1937, 294,400 tons were German, 150,000 Swedish, and 145,800

locus standi) protested at Kaunas, but were told that the law was valid under the Statute and could not be altered, although guarantees could be given that it would not be used for other than its ostensible purpose.

butter in that year being 7,400 metric tons. In 1930 Estonia exported in all 14,100 metric tons, as compared with the figure given above for production in that year of 15,500 metric tons, while Latvia exported 18,400 metric tons as compared with a production figure of 20,800 metric tons. Much progress was made with pig-breeding in Estonia and Latvia during the period; and considerable quantities of bacon were exported, mainly to Great Britain. Lithuania entered the field as a bacon exporter rather later than the two other countries, but by the end of the period her export trade was beginning to be considerable.[1] Poultry-breeding also was carried on intensively in all three countries, particularly Lithuania, which exported large quantities of eggs and poultry to Germany and Great Britain.

4. Timber

The percentage of the total area covered by forests was as follows:

	Percentage	*State property as percentage of this*
Estonia (1929). .	20	88
Latvia (1928). .	29	85
Lithuania (1927). .	17	?

The species vary considerably: in Estonia softwoods prevail to the extent of about 63 per cent., followed by birch (19 per cent.), aspen (10 per cent.), alder and others (8 per cent.), while in Latvia 77 per cent. of the total forest area is covered by softwoods, the remainder being birch (15 per cent.), aspen (4 per cent.), alder (3 per cent.), and others (1 per cent.). The Lithuanian forests consist of softwoods (62 per cent.), aspen (13 per cent.), birch (11 per cent.), alder (4 per cent.), and others (10 per cent.).

The forests of all three States, especially Latvia and Lithuania, suffered from the presence of hostile armies during the War, for large quantities of timber were felled as and when required, though it is true that this took place chiefly by the side of the roads and railways. After the War, too, the absence of agricultural buildings, and even of houses for the new small-holders, led to much abnormal felling of timber. In Lithuania, for example, a great deal of timber was sold at nominal prices or even given away to new settlers. Since the immediate post-War period, however, the respective Forestry Departments have established a more rational control over the timber resources of the State and also of those which are privately owned, for in most cases the owners in the latter category are municipalities or other public bodies.

[1] For the effects of this, see below, pp. 148-9.

1: Anonymous U-4 (no date)1938 RB1 Baltic States

Yet it is by no means certain that a desirable relation was established during this period between felling and fresh growth, and there is little doubt that the annual cut of timber was in general excessively large, at any rate in Latvia and Lithuania. In Lithuania, for example, it was admitted by an official publication[1] that over the entire area the annual growth of new timber was about 2·08 million cubic metres, but that the annual average volume of timber felled for 1927–30 was 2·57 million cubic metres,[2] although the Forestry Department annually allotted only 1·88 million cubic metres for felling. In Latvia, also, the Department of Overseas Trade Reports[3] indicate that the total annual cut has often exceeded the annual increase provided for. In general the extent to which systematic reafforestation took place during this period is very uncertain.

The method of exploitation does not vary greatly. Usually, as in Latvia, the Forestry Department sells the timber in certain forest districts by auction. Felling takes place in the winter months, labour being recruited from the peasants, who have comparatively little farm work to do at that time of year. The felled logs are then taken, generally by sleigh, to the riverside, where they are dumped until the early spring, when the thaw enables them to be floated down to the ports. To this extent the export of logs is a seasonal trade. The rivers of the Baltic States are quite indispensable to the timber trade, for the railway system by itself would be unable to cope with the transport of timber. In the early spring, rivers such as the Daugava,[4] the Gauga, and the Niemen are full of timber rafts. Estonia, however, has few rivers which can be used.

Finally, there are numerous sawmills in all three countries, and the large amount of softwoods has led to the growth of wood-pulp and cellulose industries. Apart from this there is also a growing ply-wood industry; and of the timber exported from these States a large proportion is in the form of semi-manufactures. It will be more convenient, however, to deal with this in the following section.[5]

5. Industry

A clear distinction must be drawn between Lithuania, where manufacturing industry before the War was inconsiderable, and Estonia and Latvia. In these two countries, as has already been

[1] *Lithuanian Telegraph Agency (Elta) Service*, October 1930. [2] Ibid., February 1932.
[3] e.g. D.O.T.: *Economic Conditions in Latvia, January 1935*, publ. 1935, p. 31.
[4] Timber from Poland and the U.S.S.R. also is floated down to Riga on the Daugava and its tributaries, and to a smaller extent on the Lielupe from Lithuania.
[5] It may be mentioned, before manufacturing industries are dealt with, that sea fishing is of some importance in both Estonia and Latvia, the Baltic herring being one of the chief species caught. Reference may also be made to the fact that comparatively large quantities of amber are found in Lithuanian territory, chiefly on the Kurisches Haff. On this subject see an interesting article in the *Lithuanian Telegraph Agency (Elta) Service*, September 1933.

basis. After 1926 Latvia even made an attempt to regain for her manufacturing industries some part of the Soviet market, but her success was shortlived.

The relative importance of the various manufacturing industries in Estonia and Latvia can be seen from the following table:

TABLE 21. *Number of Workmen Employed in Manufacturing Industries in 1926.**

Industry	*Estonia*	*Latvia*
Textile	8,919	5,985
Wood-working	4,389	10,061
Metallurgical	3,758	3,406
Paper and printing	3,349	5,132
Foodstuffs	1,916	3,543
Chemical	835	3,433
Other	2,683	8,160
Total	25,849	49,672

* *Estonian Year Book* for 1929, p. 108; Bilmanis, op. cit., p. 67. The figures are not strictly comparable, for the Estonian figures relate only to firms employing more than 20, or 85 per cent. of the total; moreover, it is not known whether the designations exactly correspond. They do, however, form a rough basis for comparison.

The annual value of industrial production in these countries rose to a considerable figure during the period; in 1926 it is estimated that the figure for Estonia's manufacturing industries was 98·8 million kr., or about 137 million Swiss francs, and that of Latvia as much as 311 million Swiss francs. Most, if not all, of the more important industries were located in Riga and Tallinn, with the exception of the Narva textile industry, and the shale-oil industry between Narva and Tallinn. No new industrial centres of any size were developed during these years, owing largely to the lack of capital and efficient communications. For the most part the size of the individual enterprises was small, and nearly all were dependent directly or indirectly upon the banking system for their finance, though in some cases the co-operative system and even the State were directly interested. Power was provided mainly by imported fuel, though peat was often used, and, in Estonia, shale-oil.[1]

Latvia. The timber industry was the most important branch of manufacture during the period. The timber used was very largely of Latvian origin, though Russian timber was occasionally handled. The most important section consisted of sawmills, but there were also several veneer and boxboard factories. The industry worked very largely for export oversea. Closely connected with the timber industries were the paper and pulping branches, also the cellulose

[1] However, the production of electricity in the principal plants of the five most important towns of Estonia increased from 8 to 22 million kwh. between 1923 and 1929.

industries. These latter had previously worked very largely for Russian consumers, and it was only towards the end of the period that it became possible to find substitutes abroad for the loss of this market.

Latvia's metallurgical industry, which also had worked almost entirely for the Russian market, was perhaps more hardly hit than any other single industry in the Baltic States; for not only was this market no longer available, but in many cases plant had been destroyed or removed. To some extent it was possible to readapt the plant that remained for the manufacture of goods such as agricultural machinery (of which some was even exported to the U.S.S.R. under the Treaty of 1927[1]); but, in branches such as shipbuilding and the more elaborate types of engineering, it was obviously impossible, in the circumstances, to re-establish production on the pre-War basis. In this case Latvia, like Estonia, was compelled to face the fact that, for the most part, markets and means of purchasing raw materials had disappeared.

Similar difficulties were felt by the textile industry, which before the War had reached a high degree of efficiency; but, on the whole, adaptation to the new circumstances was more successful during the period. The industry, which is both absolutely and relatively smaller than that of Estonia, comprised cotton-spinning and weaving mills, some wool-weaving mills, and flax-spinning plant. Yet, though the capacity of the industry was probably large enough to supply the country's entire requirements, the high level of costs did not permit of this, and considerable imports of semi-manufactured and finished goods were required. Of the other more important industries, except for those connected with foodstuffs, may be mentioned the rubber industry, consisting largely of the manufacture of goloshes. Many of these products were exported to neighbouring countries. The cork and linoleum industry also attained some importance during the period.

Estonia. Much of what has been said of Latvia applies also to Estonia. Here the textile industry continued to be the most important branch. The difficulties already mentioned were met to some extent by the renovation and conversion of plant for processes, such as bleaching, dyeing, and printing, which had not been undertaken before the War. By these means it was possible, during the period, to obtain a footing in foreign markets, particularly in the Baltic countries, but also in more distant markets such as the Balkan States. Yet the total of persons employed in the two cotton mills in Estonia during 1925 was only 5,000, whereas before the War the Krainholm mill alone had employed 13,000. Much success was

[1] See below, p. 127.

obtained in the flax-spinning and weaving industries, which were able to export during this period. 288

The timber industries, which include sawmills and veneer and boxwood factories, are very similar to those of Latvia, and similar conditions apply; but during these years Estonia began to specialize in the production of plywood. In this, British capital is interested through Venesta Ltd. There is also an important match industry, and a comparatively large cellulose factory at Tallinn. The paper and pulp industry suffered considerably from the War, but had begun to recover by 1929. The metal and machinery industries of Tallinn suffered in the same way as those of Riga, though the depredation and devastation caused by the War was perhaps less severe. But, whereas before the War nearly 20,000 men were employed in the principal shipyards and engineering works of that centre, the difficulty of paying for raw materials and the loss of the Russian market brought plant almost to a standstill. Several factories were eventually adapted to produce goods for the home market, but during the period the industry as a whole was rarely working to more than about 20 per cent. of capacity. 313 325 727 396

Apart from the foodstuffs industry the only other industry of importance in Estonia was that connected with shale. It has been estimated that workable strata cover an area of about 2,400 square km., and that reserves amount to over 5,000 million tons. These reserves were by no means fully exploited during the period, but a beginning was made in using the cheap form of fuel provided by oil-shale for a number of industries and public utilities, such as gas-works and the railways. Moreover, the ashes which remain from oil-shale after carbonization can be used, when ground, as a binding material for building purposes; and, as a result, the quality of Estonian cement acquired a wide reputation. It is also possible to extract a liquid oil from oil-shale, and a plant, which began to operate in 1925, was set up for this purpose. The oil so obtained is refined into a number of different types of spirit such as benzine, gasoline, and lubricating oil; and its commercial use became possible during the period. Finally, it may be mentioned that the British firm, New Consolidated Goldfields Ltd., has been interested in the production of oil from shale for some years. 382 [735] [339] [439]

Lithuania. Before the War Lithuania had no manufacturing industries comparable with those of Estonia and Latvia. Most were connected with the preparation of foodstuffs, tanning, or the manufacture of bricks, glass, and pottery; there was a timber industry, but this was on a much smaller scale than that of the two other countries. There were also two comparatively large ironworks (Schmidt Bros. and Tillmann Bros.) manufacturing nails, locks, 438